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THE PROPER LENGTH OF THE PERIOD OF TRAINING FOR NURSES *

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TRAINING schools for nurses, although in a certain sense numbered among technical schools so-called, belong to the higher class of technical schools in which theory and practice need to be combined. A training school cannot be like a trade school because the nursing of the sick is the nursing of individuals and not the wholesale nursing of persons. Although general rules are laid down for certain classes of diseases they must be applied by individual nurses to individual patients. Hence comes the necessity of imparting knowledge of principles upon which the practice of nursing can be grounded. Theoretical knowledge must therefore be combined with practical teaching. It is true that at first all practical teaching needs to be of a routine character because the pupil nurse knows no method of nursing whatever and must be taught to do everything in a prescribed manner. This must continue as in a trade until the eye and the hand have become trained and what was at first routine becomes second nature. This, however, does not imply, nor is it desirable, that the nurse should remain a machine and must ever after do the work mechanically in implicit obedience to the methods which she first learned. On the other hand it is preferable after she has become fully conversant with all the procedures and habits of her craft, that she should not remain a mere rule-of-thumb worker contented with following blindly what she learned during her pupilage. She should rather be so well grounded in the principles which underlie her art and so conversant with the reason for everything which she is called upon to do as to be able to improve her methods of nursing and to devise new methods for herself. To-day in consequence of the improved methods of teaching and the great extension of the field of nursing and above all because of the increased demands made upon the trained nurse we find a genuine demand for a longer period of training and the necessity of even post-graduate work, if the nurse would fit herself for the satisfactory discharge of the duties of superintendent of nurses or principal of a training school. Out of this demand has grown

* Read at the Annual Meeting of the Canadian Hospital Association, April 20, 1908.

the extension of the course from one year as at first planned to two years and now very generally to three years.

For the time being leaving out of consideration the question as to the exact length of any course let us inquire what should be the requisites of a proper course of training of nurses.

I would set down as the first requisite a properly graded course. Those who received their medical training forty years ago will remember that at that period medical study was largely carried on by courses of lectures which were repeated each year and which were given impartially to first, second and third year students, without any change to suit the necessities of these three classes. These lectures were generally too technical for the first year student and not technical or advanced enough for the second or third year student. Probably the beginning of a better state of medical instruction, in the United States at least, came with a grading of the instruction which was given so as to furnish proper instruction at the right point in the course for every student. The same has been true of courses of instruction for nurses. The schools did not improve until the courses were graded. Hence the first requisite is a graded course, not a course for one year dragged out over two years or a course of two years stretched out to fit three years. To attempt this is to destroy the vigor and freshness of the pupil's grasp of the subject and to encourage mental stagnation and ineffectual because inconclusive mental effort. The course should not have any vain repetitions but every part of it should be fresh and subjects should be treated consecutively, one fitting upon another and following it.

A second equally desirable requisite must be an arrangement of the hours of duty in the wards so that the nurse may not be exhausted by physical labor to such a degree as to unfit her for study. She should have time to study and physical vigor enough remaining to pursue her studies effectually. The theoretical part of her work should be regarded as of equal value with the practical part. No one can make progress as a nurse if she is kept at hard physical labor for ten, twelve or fourteen hours each day. The bodily strength fails under the strain and mental effort becomes well-nigh impossible. The first attempt to compress the period of instruction into a year proved impossible and in the interests of the nurse the course of study was extended to two years with a shortening of the hours of service and a lengthening of the hours of study. Likewise also when it was found that the two years' course did not give sufficient time for study and any attempt to pursue it involved too heavy a tax upon the physical and mental energies of the nurse the course in many schools was lengthened to three years.

The third requisite of any course therefore in my opinion should be the restriction of the amount of time spent in practical work to eight hours with two hours at least of free time each day for study and preparation for classes and lectures.

A fourth requisite ought to be a preliminary training in the branches of nursing which have to do with the comfort of patients before any responsible ward duties are laid upon the nurse. This can well be done in the probationer stage of the nurse's training so that when she is admitted to the ward for actual service among the sick, she may be able to serve them wisely. She should, for example, know how to cook and to serve a meal, how to apply a bandage, how to take a temperature and to draw a chart, how to make a bed, how to give a sponge bath or a bed bath, how to give an enema or a douche, etc. If she does not first know how to do these things which are essential to the care of a patient, she must learn them at the expense of the patient's comfort after she has been assigned to duty in the ward. We have all witnessed the distress of pupil nurses when abruptly ushered into wards while still in what I have heard termed a "trance state" to discharge important duties in connection with the sick while absolutely ignorant of what they were to do or having never seen the instruments with which they were to work.

The course of training also, while a happy union of practical work and theoretical knowledge, should be long enough to develop character and enable the authorities to determine the fitness of pupils to enter upon a career which presents unusual opportunities for good or evil to the sick and suffering. The development of character therefore must be considered after all the end to be attained in all proper training of nurses. Where the aptitudes, tendencies, weaknesses and capabilities of pupil nurses have been carefully studied as they must be in a good training school the danger of graduating degenerates like Jane Toppan and others is eliminated. This danger cannot be eliminated in any other way. Character then is an essential part of training and time is required for its true development.

Much also depends in this discussion upon what is meant by the term trained nurse. Is it a person who has acquired a practical knowledge of the care of the sick and "just enough theoretical knowledge" of her work to get along with it under the constant direction and supervision of the physician with little initiative on her part, with little ability to do independent thinking and without a thought beyond routine work in an elementary fashion; in other words, a neat, kind, affectionate, well-intentioned person, but without any outlook in life beyond her daily

task? Or, on the other hand, do we understand by the term an educated attendant upon the sick whose character has been formed by a thorough discipline of mind and heart, who is grounded in the principles of her art and is possessed of an elementary knowledge of those branches of medicine upon which it is based, one who has familiarized herself with the practical side of nursing until it is second nature but who has not been satisfied to thus limit her training? A skilled physician not only knows the principles involved in the successful care of the sick but he must be able to do in practice what needs to be done. He must not only know how to make a blood count, a urinary analysis, a microscopical examination, a blood culture, a lumbar puncture and the like, but he must also be able to do these and many other things practically. If he did them only as a matter of routine because he had been taught to do them when a student, by his instructor, he would generally fail to get much benefit from them because of inability to apprehend their importance and true significance. His knowledge must be broad and deep to be effective. So also of the nurse. It is true that she must be able to give a typhoid bath, to know how to sterilize instruments, to arrange the field of an antiseptic operation, to dress a wound, to give a hypodermic injection, to prepare a solution, to dress an infant, to take a body temperature, to measure the urine, to count the respirations, to take the pulse rate, to record all the phenomena of disease—these and a thousand other things she must do. She cannot, however, do them well or continue to do them increasingly better unless she has a familiarity with the principles upon which their successful and correct doing depends. She must know why sterilization and disinfection are needed, what the proper dose of any remedy is, what the symptoms are which indicate a change in the course of the disease, what to report to the physician, and above all, to know when danger is imminent so that he may be summoned. These require not intuition, a kind heart and a practised hand alone but knowledge and such knowledge as can come only from prolonged training in both principles and practice. All trained nurses should be familiar with every form of nursing, or rather with the nursing of every form of disease.

It may not be inappropriate for me to outline the graded course of study in a training school with which I am most familiar. During the preparatory course which covers six months theoretical instruction is given in the chemistry of foods, in anatomy and physiology, materia medica and hygiene with systematic demonstrations in the elementary essentials of nursing and bandaging. Added to this there are practical daily exercises divided among four groups of probationer nurses in cook-

ing and serving food and the care of kitchens, and pantries and store-rooms, in the care of rooms and bed-making, and in the pharmacy, in the preparation of dressings, the making up of solutions, the disinfection of dressings and applications, and finally practical service in the out-patient department where they come in contact with all sorts and conditions of patients. She is also gradually introduced during this period to do simple things in the wards under the direction of experienced nurses so that when she undertakes responsible work she is no longer a novice.

During the last half of the first year instruction is given in hygiene, general medicine, infectious diseases and orthopedics, by lectures, recitations, quizzes and regular practical work eight hours daily in the wards of the hospital. During the second year there are systematic lectures and recitations in medicine, surgery, and gynecology, the examination of urine, massage, etc., with regular practical work in the wards. In the third year there are lectures, recitations and demonstrations in obstetrics, pediatrics, nervous diseases, insanity, diseases of the special senses, and practical nursing of all these classes of patients, also of private patients—also lectures and classes upon public and private charities, settlement work, and work in institutions and families. By this arrangement there are given five months each of medical, surgical and gynecological service in the free wards of the hospital, five months of duty in private wards divided among the three services, two months of special duty with individual patients, two months of duty in the obstetrical ward, three months in the operating rooms and one month in the out-patient department, a total of twenty-eight months which together with two months of vacation make up the thirty months of time which remain after the completion of the preliminary course of six months. In my opinion this time is all well spent and no pupil nurse has reason to complain of having received too much theoretical or practical training. A detailed schedule of this work I will have printed as an appendix to this paper.

The conclusions which I have reached after much thought may be briefly summarized as follows:

1. A course of three years is advisable only where shorter hours of service have been established and where the hospital is large enough to give a good training in all branches of nursing. In such a hospital the course of training should be a graded one and each year of it should be carefully suited to the knowledge and increasing capacity of the student. Such a course is not advisable in a special hospital where the training is confined to surgery or gynecology or obstetrics or the care of infants and small children.

2. In the matter of training the smaller and the larger hospitals should combine and coöperate to supply the deficiencies of each other. Many of the smaller hospitals should content themselves with giving a preliminary course preparatory to admission to a larger hospital. To take young women for two or three years' training in a single specialty is unjust to the pupil nurse and unjust to the public. Such nurses after the first year should be passed on to larger hospitals with more patients and larger opportunities for training. Many pupils come to the larger hospitals very imperfectly trained and they would have been much more useful to the hospital and much better fitted to profit by training if they had received a preliminary training in a small hospital. In any educational system the grammar school should precede the high school and the high school should precede the college. The grammar school may call itself a high school and the high school a college but neither has any reason to complain if the true character of each school is plainly pointed out. Names do not signify after all. The grammar school can only give a grammar school education and the high school likewise. These special schools which pretend to do what they cannot do are guilty of fraud towards the nurses whom they pretend to train and equally a fraud upon the public when they launch these imperfectly and inadequately trained nurses upon the world as trained nurses. It is the duty of all parties to meet the situation honestly and to coöperate to remedy all abuses. The schools established for commercial reasons like the medical schools once established for private gain should cease to exist or content themselves with giving preliminary courses of training. We have all heard and shall continue to hear until the end of time of the need of providing second- and third-rate people to do what may be termed second and third class work. An excellent woman who was remonstrated with by a relative for encouraging her son who had little or no ability to prepare himself for the gospel ministry said in defense: "I know he is a second-rate man and always will be, but I believe there are second-rate souls to be saved." The incompetent son did become a clergyman but I have never heard that any souls of the second or even third class were saved by him. The same is true of the medical profession. The plea for better educated physicians is always met by the statement that villages and secluded hamlets exist where well-educated men will not go and that consequently ignorant and incompetent men must be turned out from the medical schools to minister to the wants of these men. An experience with pioneer conditions when a boy has taught me on the contrary that good men and well-trained men do go to these neglected communities and that poorly educated men are much

more inclined to go to thickly populated sections of the country where they often displace much better men and constitute a standing menace to the public health and private welfare of every large community. We cannot afford to suit our educational requirements to the capacity of those who have no right to enter the medical profession but rather should establish a standard which will exclude them. It is better to be without physicians than to depend upon drunken, ignorant men who have no conception of the duties, responsibilities and moral requirements which belong to the medical profession. The same is true of the training of nurses. Attendants upon the sick exist in every community and every family. Their mission is God-given. Noble, self-sacrificing untrained women have always existed and always will exist to bless their relatives, friends and neighbors by their presence and care in sickness. They are not trained women, however, and no good can come from allowing them to assume the title or to attempt to discharge the general duties of a trained nurse. They are wives and mothers with other cares and their work as nurses may be regarded as fortuitous and almost accidental. If prompted by affection and duty they assume the care of a sick member of the family, they do not in any sense become rivals to members of the nursing profession and their existence can be no argument for lowering the standard of training of those whose business it is to care for the sick. The self-educated clergyman, the natural-born doctor, the back-woods lawyer and the imperfectly trained teacher if fit to do their work feel the need of a better education and make no attempt to lower the educational standards of other ministers, physicians, lawyers and teachers, but, on the other hand, are stimulated by a higher standard to supplement their own deficiencies by summer schools or home study.

3. Courses of training for nurses should be standardized and no one should bear the title of Registered Nurses who has not been fully trained in the various branches of nursing. The small hospital or the special hospital should pass on their nurses to larger hospitals and these should make arrangements to supplement and complete their training. Special private sanatoria or hospitals owned by physicians and maintained for their own patients should cease to operate training schools but should supply themselves with nurses who have already received training. Nurses should not spend two years or even one year in a limited specialty.

In the hospital with which I am connected we have for several years given supplementary instruction to the training schools connected with two or three other hospitals where the service is of such a character as to render it impossible to give the requisite training. One of them sends

pupil nurses for training in medicine and obstetrics, a second for training in obstetrics, and a third for a general training in the work of our third year. It has been a duty and a pleasure to assist these young women thus to complete and round out their training.

APPENDIX

GENERAL PLAN OF A THREE YEARS' COURSE OF PRACTICAL INSTRUCTION

FIRST YEAR

First Six Months (probation period):

- (a) Four to four and a half months in preparatory school.
- (b) One to two months in wards, before being accepted. This is to test the student's fitness for the work of nursing.

In the wards the student begins with the simpler work, such as:

The care of beds, mattresses, pillows, blankets, and linen;

Making beds of all kinds;

Dusting and care of ward furniture, etc.;

Care of linen rooms. Folding and stacking of linen;

Care of bathrooms, lavatories, etc.;

Care of patients' clothes, closets, the clothing, etc.;

Care of rubbers, dressing basins, and instruments;

Care of convalescent patients, assisting in getting them up, etc.;

Assisting in serving meals and nourishments.

Second Six Months:

All practical instruction during this time is given in the free wards of the hospital, and pupil nurses are not placed on duty in the private wards until they have completed their first year in the school.

Day Service:

The practical nursing work in the ward is classified and arranged according to the service, and whether male or female patients; a certain number of pupils from each class in training are placed on duty and a definite work is assigned each one according to the amount of experience she has had, or her standing in the school.

To avoid the frequent changes that an eight-hour day arranged with three relays of nurses would cause, the hours are arranged as follows: (Day nurses go on duty at seven A.M.; night nurses go on duty at nine P.M.)

The following schedule of hours is given as an example of the arrangement in two wards for men and women respectively:

SCHEDULE OF HOURS:

Women's Surgical—Forty Patients

One Head Nurse in charge.

| PUPILS | ON DUTY | OFF DUTY | ON DUTY |
|------------------|----------------|----------------|---------------|
| One Senior | 7 A.M.—10 A.M. | 10 A.M.—2 P.M. | 2 P.M.—7 P.M. |
| One Senior | 7 A.M.— 1 P.M. | 1 P.M.—7 P.M. | 7 P.M.—9 P.M. |
| One Intermediate | 7 A.M.—11 A.M. | 11 A.M.—1 P.M. | 1 P.M.—5 P.M. |
| One Intermediate | 7 A.M.— 1 P.M. | 1 P.M.—5 P.M. | 5 P.M.—7 P.M. |
| One Junior | 7 A.M.—11 A.M. | 11 A.M.—1 P.M. | 1 P.M.—5 P.M. |
| One Junior | 7 A.M.—10 A.M. | 10 A.M.—2 P.M. | 2 P.M.—7 P.M. |
| One Junior | 7 A.M.— 1 P.M. | 1 P.M.—7 P.M. | 7 P.M.—9 P.M. |

SCHEDULE OF HOURS:

Men's Surgical—Thirty Patients

One Head Nurse in charge.

| PUPILS | ON DUTY | OFF DUTY | ON DUTY |
|------------------|----------------|----------------|---------------|
| One Senior | 7 A.M.—10 A.M. | 10 A.M.—2 P.M. | 2 P.M.—7 P.M. |
| One Intermediate | 7 A.M.— 1 P.M. | 1 A.M.—7 P.M. | 7 P.M.—9 P.M. |
| One Intermediate | 7 A.M.— 1 P.M. | 1 P.M.—5 P.M. | 5 P.M.—7 P.M. |
| One Junior | 7 A.M.—11 A.M. | 11 A.M.—1 P.M. | 1 P.M.—5 P.M. |
| One Junior | 7 A.M.—12 A.M. | 12 A.M.—4 P.M. | 4 P.M.—7 P.M. |

The above arrangement of hours provides at all times one of the younger nurses on duty with the older and more responsible nurses, so that they are in training for that special work later on. Also, this method allows more uniformity in the work, as, for instance, a nurse in the private wards will be assigned the diets for one month, and have these hours:

From seven to nine A.M., she prepares and serves breakfasts; off duty until one P.M., when she returns and remains on duty until seven P.M., serving dinners and suppers, and attending to the afternoon ward work for the entire month.

This arrangement has proved satisfactory in every way because,

1. One person is responsible for the handling and care of all food materials.

2. As she knows the patients' likes and dislikes much food is saved in the serving.

The same method holds good in all the various phases of nursing routine. Certain pieces of work are given to a nurse for a definite period of time, such as,

The temperatures, charting and medicines;

The care of bed patients;

The ward treatments;

The responsible work of the ward from seven P.M. until nine P.M., before the night nurse goes on duty.

This arrangement of hours also provides responsible nurses on duty during the afternoon class hours for the pupils.

DISTRIBUTION OF TRAINING FOR THE THREE YEARS

FREE WARDS:

| | |
|--------------------------|----------|
| Medical work | 5 months |
| Surgical work | 5 months |
| Gynecological work | 5 months |

PRIVATE WARDS:

| | |
|------------------------|----------|
| Ward work | 5 months |
| Special duty | 2 months |
| Obstetrical ward | 2 months |
| Operating rooms | 3 months |
| Dispensary | 1 month |
| Vacation | 8 weeks |

| | |
|--------------------------|-----------|
| Total | 30 months |
| Preparatory School | 6 months |

 Total 36 months (3 years)

 In charge of wards..... 4 to 5 months

(This opportunity is given only to those who show executive ability.)

NIGHT NURSES' HOURS ON DUTY—NINE P.M. UNTIL SEVEN A.M.

Average night duty throughout the three years is five months.

Time: Two months at completion of first year;

Two months at completion of second year;

One month in senior year in the obstetrical ward.

INSTRUCTION GIVEN THE STUDENTS DURING SECOND AND THIRD YEARS

First Half of Intermediate Year:

The pupils receive instruction in practical work in the men's and women's, medical, surgical and gynecological private and free wards, and in the isolating ward.

Second Half of Intermediate and Senior Year:

The instruction during this time includes obstetrics, children, nursing of nervous patients, operating-room technique, dispensary, and special duty in our own hospital wards.

It has been found that by carrying the emergency work in the maternity ward and operating rooms, where the services of the nurse are required for a longer time on duty than the regular eight-hour day provides, over the last half of the course of practical instruction, the pupils stand the work much better than when this special training was given during the last five months of the third year. This method also provides nurses on duty in these departments from two classes which allow a proper number on duty when the other students are attending classes.

Class work and lectures cover the period from October 1st to May 1st of each year, and they are all given in the afternoon between four and six o'clock.

SCHEDULE FOR THE YEAR

PREPARATORY CLASS: The class is divided into groups. These groups are interchanged at the end of certain periods, and are detailed to the various departments daily for instruction.

Autumn Term—From August to February.

Spring Term—From February to August.

GROUP I. Food supplies, cookery and service; kitchens, pantries, storerooms, etc.;

GROUP II. Care of the household; bed-rooms, linen-rooms, bath-rooms, pharmacy (nine to one daily), etc.;

GROUP III. Surgical supply room; preparation of dressings, appliances, solutions, disinfectants, etc.;

GROUP IV. Out-patient department; clinics, preparation of rooms, patients; apparatus; dressings, etc.

FROM SEPTEMBER TO DECEMBER AND FROM MARCH TO JUNE.

| Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---------------------|-------------------------|-------------------------------------|----------------------|-------------------------|--|
| 2.30-4 P. M. | 2.30-4 P. M. | 2 P. M. | 2.30-4 P. M. | 2.30-4 P. M. | 2.30-5 P. M. |
| Chemistry of Foods. | Anatomy and Physiology. | Anatomy and Physiology. Lecture. | Chemistry of Foods. | Anatomy and Physiology. | Anatomy and Physiology. Laboratory. |
| | 11 A. M. | | 11 A. M. | | 11 A. M. |
| | Elements of Nursing. | | Elements of Nursing. | | Elements of Nursing. |
| | Demonstration. | | Demonstration. | | Demonstration. |

FROM DECEMBER TO MARCH AND FROM JUNE TO SEPTEMBER.

| Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|--|------------|--|--|-----------|
| 4 P. M. Materia Medica. Recitation. Demonstration. | 2.30-4.30 P. M. BANDAGING. Class in two divisions. 1st division, 2.30-3.30 P. M. 2nd division, 3.30-4.30 P. M. Demonstration. | | 4 P. M. Hygiene. Recitation. Demonstration. | 2.30-4.30 P. M. BANDAGING. Class in two divisions. 1st division, 2.30-3.30 P. M. 2nd division, 3.30-4.30 P. M. Demonstration. | |

INTERMEDIATE CLASS.

| | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|--|---------|---|--|-----------|--|
| From October until May 1 each year. | | 5-6 P. M. LECTURES. General Medi- cine. General Surgery. Gynecology. | 3-5 P. M. Recitations and Demonstrations Analysis of Urine Surgical Nursing Gynecological Nursing. Massage. | | 3-5 P. M. Recitations and Demonstrations Analysis of Urine Surgical Nursing Gynecological Nursing. Massage. |

SENIOR CLASS.

| | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|--|--|----------|------------|---|---|
| From October until March 1 each year. | 5-6 P. M. Recitations and Demonstrations Obstetrical Nur- sing. Nursing of In- fants and Chil- dren. Nursing of the Nervous and Insane. Nursing of some Special Dis- eases. | | | 5-6 P. M. LECTURES. Obstetrics. Pediatrics. General Medi- cine. The Nervous Sys- tem. Insanity. Diseases of the Special Senses. | 5-6 P. M. LECTURES AND CLASSES. Public and Pri- vate Charities. Settlements. Professional Work in Insti- tutions and Families. |

This course is given twice yearly and classes are admitted in February and August of each year.

Class work is supplemented by visits to markets, manufactories, etc., announcements of which will be made during the season.

From January 1 until May 1, at specified dates, the spring and autumn classes unite for lectures on the following subjects:

Hygiene,
Bacteriology,
General medicine,
Infectious diseases,
Orthopedics.



SUGAR IN THE SOLDIER'S RATION.—In the April number of the *Archives de médecine et de pharmacie militaires*, Major P. Joly presents the results of a series of experiments on sugar in the field ration of the foot soldier, in the 94th French Infantry Regiment during the autumn manœuvres of 1906, from which he concludes that: 1. Two companies, respectively, of one hundred and forty-two and one hundred and forty-nine men, without any previous selection, were able to absorb, during twenty or seventeen days, a daily dose of sugar varying from sixty to one hundred and sixty-five grammes without any digestive trouble or other signs of intolerance resulting therefrom. 2. A hundred grammes of fresh meat may be replaced in the daily ration by a hundred grammes of sugar without the men perceiving the diminution in the amount of meat. They accepted readily, and most of them with great pleasure, the addition of sugar in the form of sweetened drink—coffee, wines, or water. 3. The substitution of one hundred and twenty grammes of sugar for the hundred grammes of fresh meat resulted in improvement in the physiological condition of men subject to muscular exertion, decreasing the number of heart beats, the respiratory rhythm, and the weight of the body consecutively; augmenting the physical resistance and decreasing the sick rate. 4. The over-alimentation with sugar acted especially upon the prophylaxis of accidents attributable to heat and fatigue on the march and in manœuvres. 5. It was possible, without in any respect diminishing the vigor of the subjects, to replace for three days the entire food ration by three hundred grammes of sugar on five volunteers, who made the last stages of the manœuvres without any fatigue.—Through the *Military Surgeon*.